

10/539621

## AMENDMENTS TO THE CLAIMS:

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This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended): A method of processing an analog signal whose frequency spectrum exhibits over a determined bandwidth two main lobes separated by a frequency band where the power is negligible, ~~characterized in that it comprises~~ comprising:

~~a step of~~ sampling according to a determined sampling frequency, and  
prior to ~~this~~ the sampling step, ~~a step consisting in~~ performing a frequency translation of the two main lobes towards one another with a view to reducing the bandwidth and hence the sampling frequency.

2. (currently amended): The method as claimed in the ~~preceding~~ claim 1, ~~characterized in that wherein~~ the signal comprising a carrier and a subcarrier of determined frequency and the main lobes exhibiting determined bandwidths, the ~~step of translating the lobes is obtained~~ performing a frequency translation is performed by multiplying the analog signal by a signal of the type  $\cos(\omega t)$ ,  $\omega$  being determined as a function of the subcarrier frequency and of the bandwidth of the main lobes.

3. (currently amended): The method as claimed in the ~~preceding~~ claim 2, ~~characterized in that wherein~~ the translation of the main lobes having generated spurious lobes, ~~[[it]]~~ and the method furthermore comprises, prior to the sampling, ~~a step of~~ filtering the translated lobes~~[[,]]~~ with a view to eliminating the spurious lobes.

4. (currently amended): The method as claimed in claim 1, ~~characterized in that wherein~~ the translation of the lobes and the sampling are grouped together into a single step consisting in sampling the analog signal according to a specific sampling frequency  $f_{es}$ .

5. (currently amended): The method as claimed in ~~the preceding claim 4, characterized in that~~ wherein the analog signal having been modulated by a carrier and a subcarrier of frequency  $f_{sp}$ , the frequency  $f_{es}$  is related to the frequency  $f_{sp}$  by the following relation  $f_{sp} = N.f_{es} - f_{es}/4$ ,  $N$  being a determined integer greater than or equal to 1.

6. (currently amended): The method as claimed in ~~the preceding claim 5, characterized in that~~ wherein  $N$  is the largest value ~~making it~~ possible to obtain the relation.

7. (currently amended): The method as claimed in ~~one of the preceding claim[[s]] 1, characterized in that it~~ further comprises comprising: ~~a prior step of~~ converting the analog signal to baseband.

8. (currently amended): The method as claimed in ~~the preceding claim 7, characterized in that~~ wherein the frequency spectrum exhibiting sidelobes around each main lobe, the sidelobes ~~[[are]]~~ eliminated by filtering.

9. (currently amended): The method as claimed in ~~one of the preceding claim[[s]] 1, characterized in that~~ the main lobes are identical.

10. (currently amended): The method as claimed in ~~one of the preceding claim[[s]] 1, characterized in that~~ wherein the analog signal is a signal modulated according to a BOC type modulation.

11. (currently amended): The method as claimed in ~~one of the preceding claim[[s]] 1, characterized in that~~ wherein the analog signal is a radionavigation signal.

12. (currently amended): The method as claimed in claim[[s]] 10 ~~and 11, characterized in that~~ wherein the BOC signal comprising a carrier, a code and a subcarrier, respectively exhibiting determined frequencies, ~~[[it]]~~ and the method further comprising: ~~comprises a step of~~ digitizing the sampled signal  $x$  and  $y$  ~~a step of~~ demodulating the digitized

signal based on the use of a code and of a subcarrier that are generated locally, the local code being generated on the basis of the frequency of the code, the local subcarrier being generated on the basis of the frequency of the subcarrier determined and reduced during the step of translating the lobes.

13. (currently amended): The method as claimed in ~~any one of claim[[s]] 11 or 12,~~ ~~characterized in that~~ wherein the radionavigation signal is that of the Galileo or Glonass or GPS system.

14. (currently amended): A device for processing an analog signal whose frequency spectrum exhibits over a determined bandwidth two main lobes separated by a frequency band where the power is negligible, ~~characterized in that it comprises~~ comprising:

an element for translating the frequency of the main lobes towards one another which is able to reduce the bandwidth.

15. (currently amended): The device as claimed in ~~the preceding~~ claim 14, ~~characterized in that it furthermore comprises~~ comprising:

a converter of the analog signal into baseband linked to the device for translating the main lobes and placed upstream of the translation device.

16. (currently amended): The device as claimed in ~~the preceding~~ claim 15, ~~characterized in that it furthermore comprises~~ comprising:

a bandpass filter linked to the baseband analog signal converter and placed between the baseband converter and the translation device.

17. (currently amended): The device as claimed in ~~any one of claim[[s]] 14 to 16,~~ ~~characterized in that~~ wherein the signal comprising a carrier and a subcarrier of determined frequency and the main lobes exhibiting determined bandwidths, the device for translating the main lobes comprises a multiplier of the analog signal by a signal of the type  $\cos(\omega t)$ ,  $\omega$  being determined as a function of the subcarrier frequency and of the bandwidth of the main lobes.

18. (currently amended): The device as claimed in ~~the preceding~~ claim 17, ~~characterized in that~~ wherein the device for translating the main lobes furthermore comprises, linked to the multiplier and placed downstream of the latter, a low-pass filter.

19. (currently amended): The device as claimed in ~~any one of claim[[s]] 17 or 18~~, ~~characterized in that~~ wherein the multiplier is linked to a sampler.

20. (currently amended): The device as claimed in ~~any one of claim[[s]] 14 to 16~~, ~~characterized in that~~ wherein the device for translating the main lobes comprises a sampler able to sample the analog signal according to a specific sampling frequency  $f_{e_s}$ .

21. (currently amended): The device as claimed in ~~any one of claim[[s]] 19 or 20~~, ~~characterized in that~~ wherein the sampler is linked to a digitizer.

22. (currently amended): The device as claimed in ~~any one of claim[[s]] 14 to 21~~, ~~characterized in that~~ wherein the analog signal is a radionavigation signal.

23. (currently amended): The device as claimed in ~~the preceding claim taken from~~ claim 21, ~~characterized in that~~ wherein the radionavigation signal comprising a carrier, a code and a subcarrier that are generated by a satellite, respectively exhibiting determined frequencies, ~~[[it]]~~ the device further comprises, linked to the digitizer, a feedback loop for slaving a code and a subcarrier that are generated locally by the device, this loop comprising an element for calculating the local phase of the code on the basis of the code frequency determined and an element for calculating the local phase of the subcarrier on the basis of a subcarrier frequency calculated on the basis of the determined subcarrier frequency, these elements for calculating phase being distinct.

24. (currently amended): The device as claimed in ~~any one of claim[[s]] 14 to 23~~, ~~characterized in that~~ wherein the lobes are identical.

25. (currently amended): A receiver of a radionavigation system, ~~characterized in that it~~  
~~comprises~~ comprising:

a device for processing an analog signal according to ~~any one of claim[[s]] 14 to 24.~~